REMARKS

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1, 2, 4, 6-14, 16, 18-25, 27, 28 and 30-38 are now present in the application. Claims 30-38 have been added. Claims 1, 13 and 24 are independent. Reconsideration of this application, as amended, is respectfully requested.

Claim Rejections Under 35 U.S.C. §§ 102 & 103

Claims 1-9, 11-19 and 21-28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ozawa, U.S. Patent No. 5,774,835. Claims 10 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ozawa in view of Bialik et al., U.S. Patent No. 5,544,278. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

Applicant has filed the Amendment on September 6, 2005. In view of the Request for Continued Examination (RCE) being filed concurrently herewith, Applicant respectfully submits that the Amendment filed September 6, 2005 be entered.

Independent claim 1 recites a combination of steps including "defining an enhancement signal as the difference between the distorted input signal and the enhanced output signal", "determining a power of the enhancement signal" and "constraining possible values for the power of the enhancement signal based on characteristics of the distorted input signal".

Independent claim 13 recites a combination of steps including "defining a first iteration enhancement signal as the difference between the distorted input signal and the first iteration

enhanced output signal", "determining a power of the first iteration enhancement signal" and "constraining possible values for the power of the first iteration enhancement signal based on characteristics of the distorted input signal".

Independent claim 24 recites a combination of elements including an enhancement circuit that "defines the first iteration enhancement signal as the difference between the first iteration enhanced output signal and the distorted input signal", "determines a power of the first iteration enhancement signal" and "constrains possible values for the power of the first iteration enhancement signal based on characteristics of the distorted input signal".

Applicant respectfully submits that the combinations of steps set forth in claims 1 and 13 and the combination of elements as set forth in claim 24 are not disclosed or suggested by the references relied on by the Examiner at least for the reasons stated in the Amendment filed September 6, 2005.

Response To Examiner's Comments In Advisory Action

The Examiner in the Advisory Action alleged that if Ozawa's impulse response is an enhancement signal, and R(m) is a power of an impulse response, then R(m) is a power of an enhancement signal. Applicant respectfully disagrees.

In particular, Ozawa discloses that the impulse response hw(n) is an <u>impulse response</u> of a spectrum postfilter 20 (see col. 6, lines 11-13). In other words, the impulse response hw(n) of the spectrum postfilter 20 is not a <u>signal</u> at all, and therefore cannot be "an enhancement signal" or "a first iteration enhancement signal" as suggested by the Examiner.

In addition, Ozawa also fails to teach that the impulse response hw(n) meets the definition of the "enhancement signal" or "first iteration enhancement signal" as recited in claims 1, 13 or 24. The Examiner referred to the signal S(n) as the distorted input signal of the present invention and referred to the signals y(n) and g(n) as the enhanced output signals. Therefore, based upon the Examiner construction, the "enhancement signal" or "first iteration enhancement signal" is the difference between the signals S(n) and y(n) or between the signals S(n) and g(n). As clearly shown in the equations (12) and (16), the difference between S(n) and y(n) and the difference between S(n) and g(n) are not the impulse response hw(n). Therefore, Ozawa's impulse response hw(n) is not "an enhancement signal as the difference between the distorted input signal and the enhanced output signal" as recited in claim 1, "the first iteration enhancement signal as the difference between the distorted input signal and the first iteration enhanced output signal" as recited in claim 13, and "the first iteration enhancement signal as the difference between the first iteration enhanced output signal and the distorted input signal" as recited in claim 24.

In addition, Ozawa discloses that R(m) simply is an L degree autocorrelation function of the impulse response hw(n) (see col. 6, lines 16-21). Since Ozawa's impulse response hw(n) is not a signal (nor an enhancement signal), the autocorrelation function R(m) cannot be the power of the enhancement signal as recited in claims 1, 13 and 24.

The Examiner in the Advisory Action further took the position that the limitation of "constraining possible values for the power of the enhancement signal based on characteristics of the distorted signal" as recited in claim 1 can be broadly construed as a gain adjustment as disclosed by Ozawa. Again, Applicant respectfully disagrees.

Ozawa discloses that the gain circuit 40 adjusts a gain of the output signal g(n) so as to equal power of the reproduced signal S(n) of an external decoder (see col. 6, lines 59-60). In other words, the gain circuit 40 may disclose constraining the power of the output signal g(n). However, as mentioned, the Examiner referred to the output signal g(n) as the enhanced output signal (not the enhancement signal or first iteration enhancement signal) of claims 1, 13 and 24, and referred to the impulse response hw(n) as the enhancement signal. Therefore, based upon the Examiner's construction, Ozawa merely discloses constraining the power of the enhanced output signal g(n), but fails to teach constraining the power of the enhancement signal hw(n) (although the impulse response hw(n) is not a signal at all.) Therefore, Ozawa's gain adjustment still fails to teach "constraining possible values for the power of the enhancement signal based on characteristics of the distorted signal" as recited in claim 1, "constraining possible values for the power of the first iteration enhancement signal based on characteristics of the distorted input signal" as recited in claim 13, and "constrains possible values for the power of the first iteration enhancement signal based on characteristics of the distorted input signal" as recited in claim 24.

With regard to the Examiner's reliance on Bialik et al., this reference has only been relied on for its teachings related to the subject matter of dependent claims. This reference also fails to disclose the above combinations of steps and elements as set forth in independent claims 1, 13 and 24. Accordingly, this reference fails to cure the deficiencies of Ozawa.

Accordingly, neither Ozawa nor Bialik et al. individually or in combination teaches or suggests the limitations of independent claims 1, 13 and 24. Therefore, Applicant respectfully submits that independent claims 1, 13 and 24 clearly define over the teachings of the utilized references.

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In addition, claims 2, 4, 6-12, 14, 16, 18-23, 25, 27 and 28 depend, either directly or indirectly, from independent claims 1, 13 and 24, and are therefore allowable based on their respective dependence from independent claims 1, 13 and 24, which are believed to be allowable.

In view of the above remarks, Applicant respectfully submits that claims 1, 2, 4, 6-14, 16, 18-25, 27, 28 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §§ 102 and 103 are respectfully requested.

Additional Claims

Additional claims 30-38 have been added for the Examiner's consideration. Support for the new claims can be found on the paragraph bridging pages 6 and 7 of the specification as originally filed.

Applicant respectfully submits that claims 30-38 are allowable due to their respective dependence on independent claims 1, 13 and 24, as well as due to the additional recitations included in these claims.

Favorable consideration and allowance of additional claims 30-38 are respectfully requested.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant respectfully petitions for a two (2) month extension of time for filing a response in connection with the present application and the required fee of $225.00 is attached herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: November 3, 2005

Respectfully submitted,
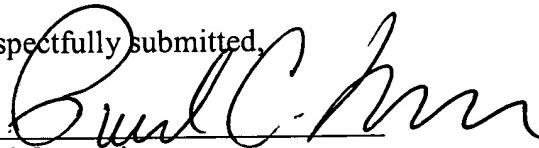
By
Paul C. Lewis
Registration No.: 43,368
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant